

STATEMENT OF BASIS (AI No. 3133)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0047546 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Vanguard SynFuels, LLC
Vanguard Biodiesel Plant
Post Office Box 399
Pollock, LA 71467

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Molly Hebert

DATE PREPARED: February 14, 2006

1. PERMIT STATUS**A. Reason For Permit Action:**

Renewal of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. NPDES permit - NPDES permit effective date: NA
NPDES permit expiration date: NA

C. LPDES permit – This facility is currently operating under LA0047546 originally issued to Farmland Industries and transferred to Vanguard SynFuels, LLC on October 1, 2003.

LPDES (LA0047546) permit effective date: January 1, 2001
LPDES permit expiration date: December 31, 2005

LPDES (LAG480539) permit effective date: December 14, 2005
LPDES permit expiration date: July 31, 2006
(for boiler blowdown)

D. Date Application Received: December 20, 2005

2. FACILITY INFORMATION**A. FACILITY TYPE/ACTIVITY - biodiesel manufacturing**

Vanguard SynFuels, LLC is a new operation currently under construction on an existing site. The company is planning the construction of a biodiesel manufacturing facility at the former Farmland Industries, Inc fertilizer manufacturing facility near Pollock, in Grant Parish. The fertilizer plant is shut down. Biodiesel will be manufactured through the trans-esterification of soybean oil. There are several recognized methods for trans-esterification, including base catalyzed trans-esterification of the oil with alcohol, direct acid catalyzation of oil with methanol, and conversion of the oil to fatty acids and then to alkyl esters with acid catalysts. The facility intends to use methanol in the presence of a base catalyst (sodium methoxide, sodium hydroxide, or potassium hydroxide). Crude glycerin, a

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secondary by-product of the reaction, will be demethylated and stored/shipped off-site for use as a feed-stock in glycerin refining. Vanguard anticipates reaching a production rate of 15 million gallons per year over the life of this permit.

Soybean oil is received via truck or rail and stored in Tank 100. Oil is transferred to the reactor vessels in batches. The oil is then combined with methanol and a base catalyst. Currently the facility plans to use sodium methoxide as a catalyst, which promotes a dry process. Vanguard may elect to use sodium hydroxide or potassium hydroxide as catalysts to optimize the reaction. Hydroxide-based catalysts produce more water, which results in more soap by-products.

Once the reaction is complete, crude glycerin is gravity separated from biodiesel in tanks. Crude glycerin bottoms are removed to a separate tank for demethylation. Biodiesel remains in the settling tank and also undergoes demethylation. The demethylation process applies steam to a heat exchanger to vaporize methanol. These vapors are recovered and condensed by the Methanol Recovery System for reuse. Methanol Recovery involves two condensers: (1) bulk condenser using cooling tower water and (2) chilled water condenser for final vapor condensing. Distillation may be included as well.

After demethylation, the sorbent Magnesol is used to remove residual traces of glycerin soaps, moisture, and unreacted soybean oil. Spent sorbent is removed by filtration and disposed of off-site. ASTM-grade biodiesel and crude glycerin are stored in tanks prior to shipment.

Water from these processes is sent to the wastewater treatment system composed of a solids settling pond, a process sump, north and south effluent ponds, and an effluent pumping station. The solids settling pond receives treated sanitary wastewater from the septic tank and QA/QC lab wastewater. It has an approximate capacity of 1 million gallons and an estimated retention time of 345 days at the proposed water usage. This pond overflows into the south effluent pond. The process sump (fitted with an oil skimmer) receives process wastewater, utility wastewater, general maintenance wastewater, and stormwater and discharges to the south effluent pond. The north and south effluent ponds have 3.8 million gallon capacity each. These are connected so they may be operated in either series or parallel depending on the situation. The ponds have an estimated retention time of 63 days when operated in parallel. The effluent pumping station pumps treated effluent to Little River using two pumps. Prior to pumping, pH is checked and adjusted if necessary. The discharge will most likely be intermittent.

Vanguard has the ability to operate a pump station on the Little River to transfer surface water to the Feed Water Pond at a rate of up to 2500 gpm. This water can be supplied to the firewater distribution system. Vanguard may use this water as source water for production at a later date. Cooling water intake regulations (316b) will not apply to this facility. This facility does not qualify as a new source under 316(b) Phase I per 40 CFR 125.83. Phase II does not apply as this facility is not a powerplant. Phase III does not apply based on BPJ as this intake is defined as an existing source.

B. FEE RATE

1. Fee Rating Facility Type: Minor
2. Complexity Type: II
3. Wastewater Type: II

4. SIC code: 2075

C. LOCATION - 737 Abe Hall Road, Pollock, Grant Parish
Latitude 31°33'16", Longitude 92°23'49"

3. **OUTFALL INFORMATION**

Outfall 001

Discharge Type: boiler blowdown, cooling tower blowdown, vacuum pump seal water, methanol recovery system, air compressor condensate, laboratory wastewater, treated sanitary wastewater, general maintenance water, plant washdown (intermittent), safety showers (intermittent), previously monitored hydrostatic test wastewater, process and non-process area stormwater, storm water from tank containment areas, demineralize regeneration stream^{*1} (intermittent)
Treatment: oil/water separator, sedimentation, stabilization ponds, and neutralization
Location: at the point of discharge from the intake of the effluent pump station (Latitude 31° 32' 56", Longitude 92° 18' 14")
Flow: 0.1224 MGD
Discharge Route: to Little River, thence to Catahoula Lake

Outfall 101

Discharge Type: sanitary wastewater
Treatment: septic tank
Location: at the point of discharge from the septic tank prior to entering the solids settling pond
Flow: 0.0014 MGD
Discharge Route: to Little River via Outfall 001, thence to Catahoula Lake

Outfall 002

Discharge Type: stormwater from the administration building/ parking, maintenance shop/parking, facility access road and the area south of the warehouse; potentially *de minimus* quantities of utility and general maintenance wastewater, hydrostatic test wastewater (monitored by Outfall 005), and runoff from firefighting activities.
Treatment: none
Location: at the point of discharge upstream of the culvert east of Abe Hall Road on the west side of the facility, prior to mixing with any other waters.
(Latitude 31°33'13", Longitude 92°23'50")
Flow: variable (stormwater)
Discharge Route: Big Creek via local drainage

Outfall 003

Discharge Type: stormwater from areas around the North and South Neutralization Ponds, Settling Pond, and former anhydrous ammonia storage tank secondary containment; potentially *de minimus* quantities of utility and general maintenance wastewater, hydrostatic test wastewater (monitored by Outfall 005), and runoff from firefighting activities.
Treatment: none

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Location: at the point of discharge at the fence line east of the neutralization pond, prior to combining with any other waters (Latitude 31°33'17", Longitude 92°23'29")
Flow: variable (stormwater)
Discharge Route: Mill Creek via local drainage, thence into Little River

Outfall 004

Discharge Type: stormwater from areas involving soybean oil receiving and transfer operations, biodiesel and glycerin staging and transfer (tanker truck and rail), refueling station, and railcar storage/locomotive activity areas, previously monitored hydrostatic test wastewater
Treatment: none; the area is contained and water is discharged through a valve in the earthen dike
Location: at the point of discharge from the overflow pipe from the contained area, prior to mixing with any other waters (Latitude 31°33'07", Longitude 92°23'46")
Flow: variable (stormwater)
Discharge Route: Big Creek via local drainage

Outfall 005

Discharge Type: hydrostatic test wastewater
Treatment: none
Location: at the point of discharge from the tested vessel, prior to mixing with any other waters
Flow: variable (dependent on vessel size)
Discharge Route: to either Big Creek via local drainage via 002 or 004, directly to Little River via 001, or to Mill Creek via local drainage, thence into Little River via 003

*1 demineralize regeneration stream – The facility may require demineralization of ground water. If required, this waste stream would include wastewater from regenerating the resins in the demineralization unit.

4. RECEIVING WATERS

STREAM - Little River, thence to Catahoula Lake (Outfall 001, 101 and 005)
Big Creek via local drainage (Outfalls 002, 004, and 005)

BASIN AND SEGMENT – Ouachita River Basin, Subsegment 081608

DESIGNATED USES -
a. primary contact recreation
b. secondary contact recreation
c. fish and wildlife propagation
d. drinking water supply
e. outstanding natural resource waters - Per LAC33.IX.1111.G, this designated use applies only to Big Creek, Headwaters to Little River

STREAM - Mill Creek via local drainage, thence into Little River (Outfalls 003 and 005)

BASIN AND SEGMENT – Ouachita River Basin, Subsegment 081602

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DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. fish and wildlife propagation
d. outstanding natural resource waters - Per LAC33.IX.1111.G, this designated use applies only to Little River-from Bear Creek to Catahoula Lake

TMDL STATUS -

1. **Subsegment 081608 (Outfalls 001, 101, 002, 004, and 005), Big Creek - Headwaters to Little River**, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 081608 was previously listed as impaired for **Mercury**, for which the below TMDL has been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to the established TMDL for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 081608:

Mercury TMDLs For Little River And Catahoula Lake Watershed (February 2003)

The Mercury impairment applies only to those waterbodies specifically identified in LDEQ's Final 2004 Integrated Report, and not to the entire subsegment unless so specified. This TMDL addresses mercury impairments for the entire subsegment.

Per the TMDL, "99.5 percent of the mercury load to the watershed is from non-point air emission sources. Because point sources are a relatively small portion of the total mercury load to the system, no reductions in point sources loads are required in this TMDL." This TMDL did not assign point source limitations. Per Section 3.5 of the application, Vanguard may use the Little River as a source of production water. Net mercury reporting requirements have been included for Outfall 001. Mercury limits have not been included for Outfalls 101,004 and 005.

2. **Subsegment 081602 (Outfalls 003 and 005), Little River-From Bear Creek to Catahoula Lake**, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 081602 was previously listed as impaired for Pathogen Indicators, Mercury, and Suspended Solids/Turbidity/Siltation, for which the below TMDL has been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to the established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

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The following TMDLs have been established for subsegment 081602:

Mercury TMDLs For Little River And Catahoula Lake Watershed (February 2003)
See above.

Little River TMDL For Fecal Coliform (May 2002)
This TMDL applies to sanitary dischargers only. As per the Little River Fecal Coliform TMDL, "...there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL." Outfalls 003-005 discharge primarily stormwater and have no sanitary component. Fecal Coliform limitations have not been included.

TMDL for TSS, Turbidity, and Siltation for 13 Subsegments in the Ouachita River Basin (May 2002)
Per the TMDL, "Point sources do not represent a significant source of TSS as defined in this TMDL." There will be no change in the permit requirements resulting from this TMDL. Outfall 005 includes standard TSS limits for hydrostatic test wastewater.

5. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale below.

6. COMPLIANCE HISTORY/COMMENTS

- A. Compliance History - There are no inspections on file since Vanguard SynFuels assumed operation of the facility in October 2003. The last inspection on file is dated 2001 and showed all surface impoundments/retention ponds were structurally sound.
- B. DMR Review/Excursions - LA0047546 was transferred from Farmland Industries to Vanguard SynFuels on October 1, 2003. A 2-year DMR review showed that (1) required DMRs were submitted and (2) there were no permit violations.

7. EXISTING EFFLUENT LIMITS

Outfall 001 - process wastewater

Parameter	Limitations		Monitoring Frequency
	Monthly Avg (mg/L)	Daily Max (mg/L)	
Flow	Report	Report	continuous
pH	6.0 su (min)	9.0 su (max)	continuous
Ammonia (as N)	60 lb/d	90 lb/d	1/month
Sulfate	---	10 (net)	1/month
TDS	---	2000	1/month
Chlorides	---	400	1/month

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Outfall 002 – storm water

Parameter	Limitations		Monitoring Frequency
	Monthly Avg (mg/L)	Daily Max (mg/L)	
Flow	Report	Report	1/quarter
pH	5.0 su (min)	9.0 su (max)	1/quarter
TOC	---	50	1/quarter
Oil and Grease	---	15	1/quarter

Outfall 003 – storm water

Parameter	Limitations		Monitoring Frequency
	Monthly Avg (mg/L)	Daily Max (mg/L)	
Flow	Report	Report	1/quarter
pH	5.0 su (min)	9.0 su (max)	1/quarter
TOC	---	50	1/quarter
Oil and Grease	---	15	1/quarter

Outfall 004 – storm water

Parameter	Limitations		Monitoring Frequency
	Monthly Avg (mg/L)	Daily Max (mg/L)	
Flow	Report	Report	1/quarter
pH	5.0 su (min)	9.0 su (max)	1/quarter
TOC	---	50	1/quarter
Oil and Grease	---	15	1/quarter

Outfall 005 – storm water

Parameter	Limitations		Monitoring Frequency
	Monthly Avg (mg/L)	Daily Max (mg/L)	
Flow	Report	Report	1/quarter
pH	5.0 su (min)	9.0 su (max)	1/quarter
TOC	---	50	1/quarter
Oil and Grease	---	15	1/quarter

Changes from Existing Permit:

1. Outfalls 004 and 005 of the previous permit have been deleted. These outfalls discharged only stormwater. Storm water will be addressed in the SWP3.
2. Process has changed from fertilizer production to biodiesel production. Outfall 001 limits have changed accordingly.
 - a. The ammonia limits in the current permit were based on 40 CFR 418.23, Fertilizer Manufacturing – Ammonia Subcategory. These limits have been removed.
 - b. TDS, sulfates, and chlorides limits were based on previously issued LWDPS and NPDES permits. Due to significant changes in process, these limits are no longer applicable. Per LAC33.IX.2707.L.2.a, these limits can be removed without violating anti-backsliding provisions.
3. An internal outfall, 101, has been added to monitor sanitary wastewater.
4. Outfall 005, hydrostatic test wastewater has been added.

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5. Outfall 004, stormwater from areas involving soybean oil receiving and transfer operations, biodiesel and glycerin staging and transfer (tanker truck and rail), refueling station, and railcar storage/locomotive activity areas, previously monitored hydrostatic test wastewater, has been added.

8. ENDANGERED SPECIES

The receiving waterbodies, Subsegment 081608 and 081602 of the Ouachita River Basin are not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005 from Watson (FWS) to Gautreaux (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

9. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

10. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

11. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

As per LAC33:IX.2511.B.14.k, stormwater discharges from facilities classified as SIC Code 2075 are considered to be associated with industrial activities. Therefore, an SWP3 is included in the permit.

The SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility (see narrative requirements for the AI).

11. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

Rationale for Vanguard SynFuels, LLC

- Outfall 001** - boiler blowdown, cooling tower blowdown, vacuum pump seal water, methanol recovery system, air compressor condensate, laboratory wastewater, treated sanitary wastewater, general maintenance water, plant washdown (intermittent), safety showers (intermittent), previously monitored hydrostatic test wastewater, process and non-process area stormwater, storm water from tank containment areas, demineralize regeneration stream (estimated flow is 0.1224 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	Report : Report	LAC33.IX.2707.I.1.b
BOD ₅	30 : 45	see below
TOC	: Report	see below
TSS	90 : 135	see below
Oil & Grease	15 : 30	see below
Mercury	— : Report (*1)	see below
pH	6.0 su – 9.0 su (min) (max)	previous permit

(*1) The difference between the intake water (from Little River) concentration and the discharge concentration from Outfall 001.

Treatment: oil/water separator, sedimentation, stabilization ponds, and neutralization

Monitoring Frequency: Flow, pH, BOD₅, TOC, and Oil & Grease shall be monitored monthly. Mercury shall be monitored quarterly.

Limits Justification: A review of current biodiesel facilities in the U.S. found only a handful of permitted water dischargers. The majority of those facilities use land application systems and have no discharge permits. BOD₅ and Oil & Grease limits and TOC reporting requirements are based on reviews of the industry, BPJ, and an NPDES permit with discharging outfalls, LA9700105. These limits are subject to revision upon re-issuance, pending the determination of appropriate limitations based on DMR data characterizing discharges associated with biodiesel manufacturing. TSS limits are based on LAC33.IX.711.D, Treatment Equivalent to Secondary Treatment for existing oxidation pond systems.

Mercury reporting requirements are based on the Mercury TMDLs For Little River And Catahoula Lake Watershed (February 2003) and the facility proposal to use the Little River for source water. These reporting requirements are net limits as the facility intends to discharge effluent back to the Little River. The Mercury concentration of the intake water shall be reported on the DMR along with the mercury concentration in the effluent.

BPJ Best Professional Judgement
su Standard Units

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2. Outfall 101 – sanitary wastewater (estimated flow is 0.0014 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg. Weekly Average	<u>Reference</u>
Flow (MGD)	-- : Report	LAC33.IX.2707.I.1.b
Fecal Coliform Colonies/100 ml	-- : 400	see below

Treatment: none

Monitoring Frequency: Quarterly

Limits Justification:

Flow reporting is required by LAC33.IX.2707.I.1.b. Fecal Coliform limits are based on the bacteria criteria in LAC33.IX.1113.C.5 and the Class I Sanitary General Permit (LAG530000).

BOD₅, TSS, and pH shall be monitored at the external outfall, 001. Fecal Coliform monitoring shall be conducted prior to the effluent entering the solids settling pond to get a true estimate of Fecal Coliform loading resulting from the facility, excluding natural contributions from stormwater runoff.

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su Standard Units

Rationale for Vanguard SynFuels, LLC

3. **Outfall 002** - stormwater from the administration building/ parking, maintenance shop/parking, facility access road and the area south of the warehouse; Potentially *de minimus* quantities of utility and general maintenance wastewater, hydrostatic test wastewater (monitored by Outfall 005), and runoff from firefighting activities. (estimated flow is variable)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	--- : Report	LAC33.IX.2707.I.1.b
TOC	--- : 50	see below
Oil and Grease	--- : 15	see below
pH	5.0 su – 9.0 su (min) (max)	see below

Treatment: none

Monitoring Frequency: Quarterly

Limits Justification:

Flow, oil and grease, and TOC limits are based on LDEQ's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). pH limits are based on the previous permit. A minimum pH of 5.0 standard units has been allowed to account for naturally occurring low pH soils in this area.

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4. **Outfall 003** - stormwater from areas around the North and South Neutralization Ponds, Settling Pond, and former anhydrous ammonia storage tank secondary containment; potentially *de minimus* quantities of utility and general maintenance wastewater, hydrostatic test wastewater (monitored by Outfall 005), and runoff from firefighting activities. (estimated flow variable)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	-- : Report	LAC33.IX.2707.I.1.b
TOC	-- : 50	see below
Oil and Grease	-- : 15	see below
pH	5.0 su – 9.0 su (min) (max)	see below

Treatment: none

Monitoring Frequency: Quarterly

Limits Justification:

Flow, oil and grease, and TOC limits are based on LDEQ's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). pH limits are based on the previous permit. A minimum pH of 5.0 standard units has been allowed to account for naturally occurring low pH soils in this area.

BPJ Best Professional Judgement
su Standard Units

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5. **Outfall 004** - stormwater from areas involving soybean oil receiving and transfer operations, biodiesel and glycerin staging and transfer (tanker truck and rail), refueling station, and railcar storage/locomotive activity areas, and previously monitored hydrostatic test wastewater (estimated flow is variable)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	--- : Report	LAC33.IX.2707.I.1.b
BOD ₅	30 : 45	see below
TOC	--- : 50	see below
Oil and Grease	--- : 15	see below
pH	5.0 su – 9.0 su (min) (max)	see below

Treatment: none

Monitoring Frequency: Quarterly

Limits Justification:

Flow, oil and grease, and TOC limits are based on LDEQ's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). pH limits are based on the previous permit. A minimum pH of 5.0 standard units has been allowed to account for naturally occurring low pH soils in this area. A BOD₅ limit has been added through BPJ because of soybean oil receiving and transfer activities conducted in this area of the facility.

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6. Outfall 005– hydrostatic test wastewater (estimated flow is variable)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg;Daily Max (mg/l)	<u>Reference</u>
Flow	--- : Report	see below
TSS	--- :90	see below
Oil & Grease	--- : 15	see below
TOC	--- : 50	see below
pH	6.0 su – 9.0 su (min) (max)	see below

Treatment: none

Monitoring Frequency: once prior to discharge

Limits Justification: These limits are based on Schedule D of the Light Commercial General Permit (LAG480000). Hydrostatic limits for Benzene, Total BTEX, and Lead have not been included as the facility does not manufacture petroleum hydrocarbons and has no potential to discharge hydrostatic test water containing these pollutants (BPJ).

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